whole vehicle testing data demonstrating the in-use durability of the off-cycle technology components.

(3) *EPA review of the off-cycle credit application.* Upon receipt of an application from a manufacturer, EPA will do the following:

(i) Review the application for completeness and notify the manufacturer within 30 days if additional information is required.

(ii) Review the data and information provided in the application to determine if the application supports the level of credits estimated by the manufacturer.

(iii) For credits under paragraph (d) of this section, EPA will make the application available to the public for comment, as described in paragraph (d)(2) of this section, within 60 days of receiving a complete application. The public review period will be specified as 30 days, during which time the public may submit comments. Manufacturers may submit a written rebuttal of comments for EPA consideration or may revise their application in response to comments. A revised application should be submitted after the end of the public review period, and EPA will review the application as if it was a new application submitted under this paragraph (e)(3).

(4) *EPA decision.* (i) For credits under paragraph (c) of this section, EPA will notify the manufacturer of its decision within 60 days of receiving a complete application.

(ii) For credits under paragraph (d) of this section, EPA will notify the manufacturer of its decision after reviewing and evaluating the public comments. EPA will make the decision and rationale available to the public.

(iii) EPA will notify the manufacturer in writing of its decision to approve or deny the application, and will provide the reasons for the decision. EPA will make the decision and rationale available to the public.

(f) *Calculation of total off-cycle credits.* Total off-cycle credits in Megagrams of CO_2 (rounded to the nearest whole number) shall be calculated separately for passenger automobiles and light trucks according to the following formula:

Total Credits (Megagrams) = (Credit × Production × VLM) ÷ 1,000,000

Where:

Credit = the credit value in grams per mile determined in paragraph (d)(1), (d)(2) or (d)(3) of this section.

Production = The total number of passenger automobiles or light trucks, whichever is applicable, produced with the off-cycle technology to which to the credit value determined in paragraph (b), (c), or (d) of this section applies.

VLM = vehicle lifetime miles, which for passenger automobiles shall be 195,264 and for light trucks shall be 225,865.

[77 FR 63170, Oct. 15, 2012]

§ 86.1870–12 CO_2 credits for qualifying full-size pickup trucks.

Full-size pickup trucks may be eligible for additional credits based on the implementation of hybrid technologies or on exhaust emission performance, as described in this section. Credits may be generated under either paragraph (a) or (b) of this section for a qualifying pickup truck, but not both.

(a) *Credits for implementation of hybrid electric technology.* Full size pickup trucks that implement hybrid electric technologies may be eligible for an additional credit under this paragraph (a). Pickup trucks earning the credits under this paragraph (a) may not earn the credits described in paragraph (b) of this section. To claim this credit the manufacturer must measure the recovered energy over the Federal Test Procedure according to § 600.116–12(c) to determine whether a vehicle is a mild or strong hybrid electric vehicle. To provide for EPA testing, the vehicle must be able to broadcast battery pack voltage via an on-board diagnostics parameter ID channel.

(1) Full size pickup trucks that are mild hybrid electric vehicles and that are produced in the 2017 through 2021 model years are eligible for a credit of 10 grams/mile. To receive this credit in a model year, the manufacturer must produce a quantity of mild hybrid electric full size pickup trucks such that the proportion of production of such vehicles, when compared to the manufacturer's total production of full size pickup trucks, is not less than the amount specified in the table below for that model year.

Model year	Required minimum percent of full size pickup trucks (percent)
2017	20
2018	30
2019	55
2020	70
2021	80

(2) Full size pickup trucks that are strong hybrid electric vehicles and that are produced in the 2017 through 2025 model years are eligible for a credit of 20 grams/mile. To receive this credit in a model year, the manufacturer must produce a quantity of strong hybrid electric full size pickup trucks such that the proportion of production of such vehicles, when compared to the manufacturer's total production of full size pickup trucks, is not less than 10 percent in that model year.

(b) *Credits for emission reduction performance.* Full size pickup trucks that achieve carbon-related exhaust emission values below the applicable target value determined in § 86.1818–12(c)(3) may be eligible for an additional credit. For the purposes of this paragraph (b), carbon-related exhaust emission values may include any applicable air conditioning leakage and/or efficiency credits as determined in § 86.1867 and § 86.1868. Pickup trucks earning the credits under this paragraph (b) may not earn credits described in paragraph (a) of this section and may not earn credits based on the production multipliers described in § 86.1866–12(b).

(1) Full size pickup trucks that are produced in the 2017 through 2021 model years and that achieve carbon-related exhaust emissions less than or equal to the applicable target value determined in § 86.1818–12(c)(3) multiplied by 0.85 (rounded to the nearest gram/mile) and greater than the applicable target value determined in § 86.1818–12(c)(3) multiplied by 0.80 (rounded to the nearest gram/mile) in a model year are eligible for a credit of 10 grams/mile. A pickup truck that qualifies for this credit in a model year may claim this credit for subsequent model years through the 2021 model year if the carbon-related exhaust emissions of that pickup truck do not increase relative to the emissions in the model year in which the pickup truck qualified for the credit. To qualify for this credit in a model year, the manufacturer must produce a quantity of full size pickup trucks that meet the initial emission eligibility requirements of this paragraph (b)(1) such that the proportion of production of such vehicles, when compared to the manufacturer's total production of full size pickup trucks, is not less than the amount specified in the table below for that model year.

Model year	Required minimum percent of full size pickup truck (percent)
2017	15
2018	20
2019	28
2020	35
2021	40

(2) Full size pickup trucks that are produced in the 2017 through 2025 model years and that achieve carbon-related exhaust emissions less than or equal to the applicable target value determined in § 86.1818–12(c)(3) multiplied by 0.80 (rounded to the nearest gram/mile) in a model year are eligible for a credit of 20 grams/mile. A pickup truck that qualifies for this credit in a model year may claim this credit for a maximum of four subsequent model years (a total of five consecutive model years) if the carbon-related exhaust emissions of that pickup truck do not increase relative to the emissions in the model year in which the pickup truck first qualified for the credit. This credit may not be claimed in any model year after 2025. To qualify for this credit in a model year, the manufacturer must produce a quantity of full size pickup trucks that meet the emission requirements of this paragraph (b)(2) such that the proportion of production of such vehicles, when compared to the manufacturer's total production of full size pickup trucks, is not less than 10 percent in that model year. A pickup truck that qualifies for this credit in a model year and is subject to a major redesign in a subsequent model year such that it qualifies for the credit in the model year of the redesign may be allowed to qualify for an additional five years (not to go beyond the 2025 model year) with the approval of the

Administrator. Use good engineering judgment to determine whether a pickup truck has been subject to a major redesign.

(c) *Calculation of total full size pickup truck credits.* Total credits in Megagrams of CO_2 (rounded to the nearest whole number) shall be calculated for qualifying full size pickup trucks according to the following formula:

$$\text{Total Credits (Megagrams)} = ([(10 \times \text{Production}_{\text{MHEV}}) + (10 \times \text{Production}_{\text{T15}}) + (20 \times \text{Production}_{\text{SHEV}}) + (20 \times \text{Production}_{\text{T20}})] \times 225{,}865) \div 1{,}000{,}000$$

Where:

$\text{Production}_{\text{MHEV}}$ = The total number of mild hybrid electric full size pickup trucks produced with a credit value of 10 grams per mile from paragraph (a)(1) of this section.

$\text{Production}_{\text{T15}}$ = The total number of full size pickup trucks produced with a performance-based credit value of 10 grams per mile from paragraph (b)(1) of this section.

$\text{Production}_{\text{SHEV}}$ = The total number of strong hybrid electric full size pickup trucks produced with a credit value of 20 grams per mile from paragraph (a)(2) of this section.

$\text{Production}_{\text{T20}}$ = The total number of full size pickup trucks produced with a performance-based credit value of 20 grams per mile from paragraph (b)(2) of this section.

[77 FR 63174, Oct. 15, 2012]

§ 86.1871–12 Optional early CO_2 credit programs.

Manufacturers may optionally generate CO_2 credits in the 2009 through 2011 model years for use in the 2012 and later model years subject to EPA approval and to the provisions of this section. Manufacturers may generate early fleet average credits, air conditioning leakage credits, air conditioning efficiency credits, early advanced technology credits, and early off-cycle technology credits. Manufacturers generating any credits under this section must submit an early credits report to the Administrator as required in this section. The terms ''sales'' and ''sold'' as used in this section shall mean vehicles produced for U.S. sale, where ''U.S.'' means the states and territories of the United States.

(a) *Early fleet average CO_2 reduction credits.* Manufacturers may optionally generate credits for reductions in their fleet average CO_2 emissions achieved in the 2009 through 2011 model years. To generate early fleet average CO_2 reduction credits, manufacturers must select one of the four pathways described in paragraphs (a)(1) through (4) of this section. The manufacturer may select only one pathway, and that pathway must remain in effect for the 2009 through 2011 model years. Fleet average credits (or debits) must be calculated and reported to EPA for each model year under each selected pathway. Early credits are subject to five year carry-forward restrictions based on the model year in which the credits are generated.

(1) *Pathway 1.* To earn credits under this pathway, the manufacturer shall calculate an average carbon-related exhaust emission value to the nearest one gram per mile for the classes of motor vehicles identified in this paragraph (a)(1), and the results of such calculations will be reported to the Administrator for use in determining compliance with the applicable CO_2 early credit threshold values.

(i) An average carbon-related exhaust emission value calculation will be made for the combined LDV/LDT1 averaging set, where the terms LDV and LDT1 are as defined in § 86.1803.

(ii) An average carbon-related exhaust emission value calculation will be made for the combined LDT2/HLDT/MDPV averaging set, where the terms LDT2, HLDT, and MDPV are as defined in § 86.1803.

(iii) Average carbon-related exhaust emission values shall be determined according to the provisions of § 600.510–12 of this chapter, except that:

(A) [Reserved]

(B) The average carbon-related exhaust emissions for alcohol fueled model types shall be calculated according to the provisions of § 600.510–12(j)(2)(ii)(B) of this chapter, without the use of the 0.15 multiplicative factor.

(C) The average carbon-related exhaust emissions for natural gas fueled